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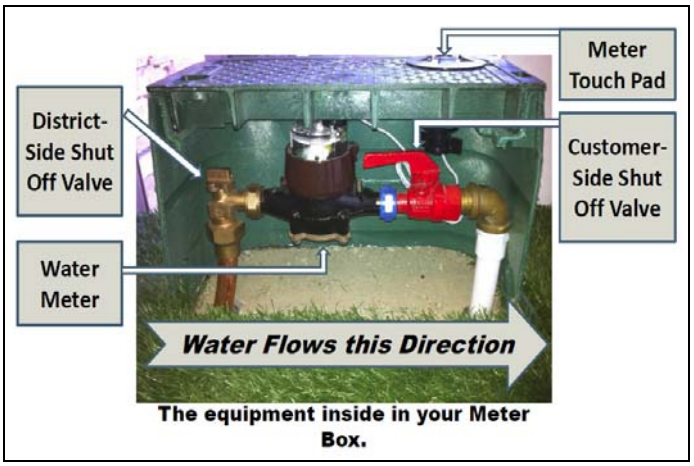
RESIDENTIAL PLUMBING SYSTEMS

The District routinely receives questions from customers concerning their home plumbing system; many times the questions (and answers) involve discussions about the residential water meter. Regrettably, sometimes these questions occur after there has been water leak at the residence; either a leak in the irrigation system, or even worse, a plumbing problem inside the home.

It is helpful to understand how to shut off the water at your home in the event of an emergency. Also, this can be very helpful information when attempting to find, isolate, and repair a water leak. The cut-away diagrams below provide descriptions of how all this works.

The Water First Enters Your Property



The equipment inside in your Meter Box.

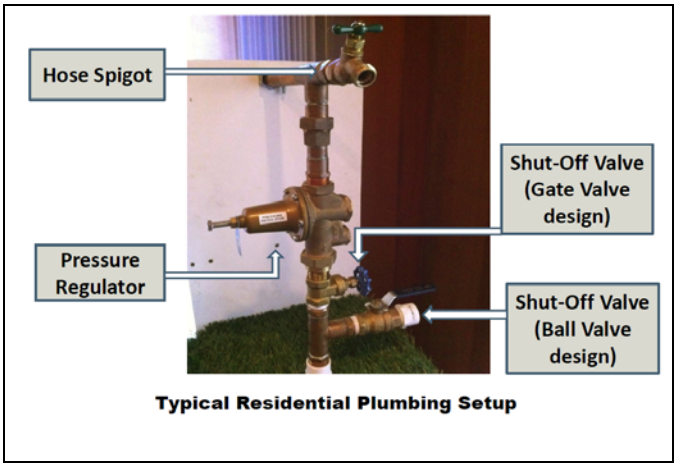
The typical residential plumbing system begins at the front of the property at the water meter box. Depending upon its actual location (sidewalk or the lawn) the meter box might be constructed of concrete, metal, or heavy duty plastic. It is important for customers to realize that District Meter Readers must have safe and debris free access to the meter box at all times in order to read the meter, or to make emergency repairs. The meter box itself houses several pieces of equipment that are designed to assist both District employees and the customer.

Starting at the copper lateral from the water main in the street, the first item of importance is the District-Side Shut-Off Valve. This valve is used by District field staff to ensure the delivery of water to the customer. It is important to note that this valve is only to be operated by District staff. If there is ever an issue that arises at your residence that requires operating this valve, please feel free to contact the District and a field representative can be sent to assist you.

The next item in sequence is the water meter, which is typically a brass meter body mounted with a plastic register. This register measures the water flow through the meter. The meter register is an excellent tool for both the District and the customer for identifying leaks in the residential plumbing system. In addition to a series of numbered dials that measures the user's water consumption, a typical meter register face has another dial that simply demonstrates the flow of water through the meter body. When water is used, the dial spins clockwise; when the system is static (no water is being used), the dial does not move. If the customer believes no water is being used and the dial is spinning, there is probably a leak in the residential plumbing system; this may be something as simple as a leaky toilet tank, or as severe as an underground pinhole pipeline leak – sometimes under cement slabs.

After the water meter, the next equipment item is the Customer-side Shut-Off Valve. This valve can be used by the customer in the event of a plumbing system leak. If there is a leak in the plumbing, turning this valve will stop the flow of water to your home, and permit the necessary repairs to the plumbing system. This valve is also used by the District during meter installation and subsequent change-outs.

The Easiest Place To Turn The Water Off



Typical Residential Plumbing Setup

After the meter box, there should be an important and strategically located plumbing setup for customers. The location of these valves and devices vary depending upon home builder and city or county code. Usually, it is located outside the home near the front door; sometimes it located between the front door and the garage door. In some instances it can even be located inside the garage.

The first important item in this setup is a main shut-off valve. This valve is typically in line with a hose spigot and is designed to isolate the home plumbing system from both the meter and the residential system. This should be the valve customers use first when tuning off water to the house. This valve can come in two designs: Gate Valve or Ball Valve. A word of caution, if this valve is not exercised (closed and opened) at least once a year, it may not work correctly at a time of great need (won't close or won't open); this is why the customer valve in the meter box becomes so important.

The two types of valve are worth understanding. A Gate Valve is designed with a round handle for turning the valve open or close. This motion raises or lowers a gate inside of the housing to stop or start the flow of water. Unfortunately, these valves can be prone to failure as they age because they can corrode. On the other hand, Ball Valves use a lever for operating an internal ball with a hole bored through the center of it. When the lever is parallel to the pipe, the valve is open and water will flow. If the lever is perpendicular to the pipe, the valve is closed. If this valve fails, the District recommends the homeowner contact a plumber for replacement. Another word of caution: always open water valves slowly. If you open the valve too quickly, you can "hammer" the line (cause a water shock wave) and it may cause a leak.

The second item in sequence is the Pressure Regulator. This device is extremely important to the homeowner because it is designed to maintain an optimal water pressure in the home plumbing system. Typical water pressures in the District Distribution System can be as high as 125 PSI (pounds per square inch). This amount of pressure is not recommended for the plumbing inside your home, therefore a Pressure Regulator is installed. This device can lower the pressure to the recommended levels of 60 to 75 PSI. Again, it is the District's recommendation that the homeowner contact a plumber for the replacement of this device.

Residential plumbing systems are designed with a series of strategically located valves and regulating devices to ensure the homeowner is provided water in a safe manner, but also, to enable repair when necessary. As always, please feel free to contact District Staff if ever a water issue arises at your home.

BOARD OF DIRECTORS MEETING

The Regular Board Meeting is held on the third Wednesday of each month at 7:00 p.m. at the District's office located at 32003 Dove Canyon Drive, Trabuco Canyon. The public is encouraged to attend.

BOARD MEETING HIGHLIGHTS

The Board Meeting was held on August 18, 2010. The following items are highlights from the Meeting:

- Adoption of Resolution 2010-1140 regarding determining the Employer's Contribution under the Public Employee's Medical and Hospital Care Act.
- Status update relating to Water Monitoring and Water Conservation efforts
- Status update relating to Baker Regional Water Treatment Facility
- Status update relating to Rose Canyon and Lang Wells Groundwater Treatment Facility

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